



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---------------------------------|-------------|----------------------|-----------------------|------------------|
| 10/579,164 | 05/29/2007 | Margit Teltschik | 13838-00005-US | 1591 |
| 23416 | 7590 | 12/18/2009 | EXAMINER | |
| CONNOLLY BOVE LODGE & HUTZ, LLP | | | ROBINSON, CHANCEITY N | |
| P O BOX 2207 | | | ART UNIT | PAPER NUMBER |
| WILMINGTON, DE 19899 | | | 1795 | |
| MAIL DATE | | DELIVERY MODE | | |
| 12/18/2009 | | PAPER | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | |
|------------------------------|---|--------------------------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/579,164 Examiner CHANCEITY N. ROBINSON | TELTSCHIK ET AL. Art Unit 1795 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 09 September 2009.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-15 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-15 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

1. The Applicant's request for reconsideration filed on September 09, 2009 was received.
2. The text of those sections of Title 35, U.S.C. code not included in this action can be found in the prior Office Action issued on June 09, 2009.

Claim Rejections - 35 USC § 103

3. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. (US 5,889,116) in view of Dudek et al. (WO 01/88615 A1).

Regarding claims 1-15, Suzuki et al. disclose a process for the production of the flexographic printing plate by thermal development (abstract). The flexographic printing plate comprises a stable substrate and photopolymerizable layer (col. 10, lines 9-26). The photopolymerizable relief-forming layer comprises of an elastomeric binder (col. 2, line 31), ethylenically unsaturated monomers (col. 2, lines 37-38), plasticizer (column 9, lines 50-56) and photoinitiator (col. 9, lines 29-35). Suzuki et al. disclose an imagewise exposure of the photopolymerizable layer to actinic radiation (page 10, lines 46-56), heating of the exposed flexographic printing plate to a temperature of from 40 to 200 °C (example 1). Suzuki et al. disclose the elastomeric binder is at least one styrene/butadiene copolymer having a molecular weight of from 80000 to 250000 g/mol and styrene content of from 15 to 35% by weight, based on the binder, the proportion of butadiene present in 1,2-linked form being at least 15% by weight, based on the binder, and the amount of the styrene/butadiene block copolymer is from 35 to 50% by weight and that of the plasticizer is from 25 to 50% by weight, based in each case on the sum of all components of the relief-forming layer (col. 7, lines 4-51 & col. 8, lines 29-33 & example 1). Suzuki et al. disclose a mixture furthermore comprises at least one mineral oil

(petroleum resin) and at least polybutadiene oil (col. 9, lines 19-56). Suzuki et al. disclose the photopolymerizable layer additionally comprises up to 20% by weight of at least one secondary binder (copolymer; col. 1, line 65- col. 2, line 40).

However, Suzuki et al. do not explicitly disclose the process step of removal of the softened, unpolymerized parts of the relief-forming layer with formation of a printing relief or imagewise exposure on a digitally imageable layer through a mask. Dudek et al. disclose a process for preparing a flexographic printing plate (abstract) which comprise of a dimensionally stable substrate (support; page 9, lines 23-38) and photopolymerizable layer (page 10, lines 8-9). Dudek et al. disclose the process step of removal of the unpolymerized parts of the photopolymerizable layer (page 15, lines 6-36) while in contact with an absorbent material (page 15, line 37- page 6, line 32). The removal process aids in providing internal strength and tear resistance to temperature up to, including and slightly beyond the melting temperature of the uncured photopolymerizable material. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include the removal process step of Dudek et al. in the process of Suzuki et al. because Dudek et al. disclose the removal process aids in providing internal strength and tear resistance to temperature up to, including and slightly beyond the melting temperature of the uncured photopolymerizable material. Dudek et al. disclose the imagewise exposure of the photosensitive element to actinic radiation may be conducted in the presence or absence of atmospheric oxygen for photosensitive elements having an in situ mask (page 14, lines 22-24) in order to assure good contact between the image transparency and the photosensitive element. The mask can be an IR-ablative mask or thermographic mask (page 13, lines 15-30). The flexographic printing element has a digitally imageable layer (page 13, lines 5-

9). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include imagewise exposure on a digitally imageable layer through a mask as disclosed by Dudek et al. in the process of Suzuki et al. because Dudek et al. disclose the imagewise exposure on a digitally imageable layer through a mask aids in providing good contact between the image transparency and the photosensitive element.

Response to Arguments

4. Applicant's arguments filed 09/09/2009 have been fully considered but they are not persuasive.

Applicant's principal arguments are:

(a) According to Suzuki, the photosensitive rubber plate containing the composition is developed with a developing solution and then rinsed with water. The developing solution is an aqueous 2% solution coconut oil fatty acid diethanolamide. The aim of the Suzuki invention is to provide a photosensitive rubber plate capable of being washed with water at a high rate at the step of development. This was achieved by using certain hydrophilic copolymers containing phosphorus-containing monoethylenically and diethylenically unsaturated monomers. There is no hint or suggestion in Suzuki that the photosensitive composition can be used successfully with flexographic printing plates which are processed by the applicant's claimed thermal development.

Examiner disagrees. Examiner notes that the photosensitive composition disclosed by Suzuki is used to prepare flexographic printing plates just as claimed by the instant application. See abstract. Further, Suzuki discloses a process for producing a flexographic printing plate by thermal development, which comprises a dimensionally substrate and a photopolymerizable

relief-image forming layer. See col. 10, lines 9-26 and lines 27-56. The photopolymerizable relief-forming layer comprises an elastomeric binder (col. 2, line 31), ethylenically unsaturated monomers (col. 2, lines 37-38), plasticizer (column 9, lines 50-56) and photoinitiator (col. 9, lines 29-35). Also, Suzuki discloses imagewise exposure of the photopolymerizable layer to actinic radiation (page 10, lines 46-56), heating of the exposed flexographic printing plate to a temperature of from 40 to 200 °C (example 1). Suzuki was not added to disclose to the removal step of the instant invention. The Examiner added Dudek et al. to disclose the limitation of removing the unpolymerized parts of the relief layer. Further, Examiner notes the instant application only claims the removal of the softened, unpolymerized parts of the relief-forming layer with formation of a printing layer in the independent claims. There is no disclosure in the independent claim that the removal of the unpolymerized parts of the relief-forming layer with formation of a printing relief could not occur by washing the unpolymerized parts with a solution. Examiner notes that washing the unpolymerized parts is a form of removal. The instant application does not recite how the removal process occurs in the independent claim. Examiner notes Applicant states that *Suzuki does not suggest or hint that the photosensitive composition can be used successfully with flexographic printing plates.* Applicant has stated her opinion without showing any evidence that the Suzuki's photosensitive composition can not be used successfully with flexographic printing plates. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

(b) Dudek does not disclose the photopolymerizable relief-forming layer on the present invention. There is no hint or suggestion in Dudek that the photosensitive composition of Suzuki, which is disclosed for a chemical development step using a washing solution, can be successfully employed as a photopolymerizable elastomeric layer in the Dudek process employing a thermal development step. Therefore, there was no motivation for the skilled in the art to modify the teaching of Dudek by using the photosensitive composition in order to arrive at the invention.

Examiner agrees that Dudek does not explicitly disclose the relief-image forming layer as claimed by the instant application. However, Examiner has only added Dudek to disclose the process steps of the instant application of removal of the softened, unpolymerized parts of the relief-forming layer with formation of a printing relief and the step of imagewise exposure on a digitally imageable layer through a mask. Dudek discloses a process for preparing a flexographic printing plate (abstract) which comprise of a dimensionally stable substrate (support; page 9, lines 23-38) and photopolymerizable layer (page 10, lines 8-9). Dudek discloses the process step of the removal of the unpolymerized parts of the photopolymerizable layer (page 15, lines 6-36) while in contact with an absorbent material (page 15, line 37- page 6, line 32). Dudek discloses the imagewise exposure of the photosensitive element to actinic radiation may be conducted in the presence or absence of atmospheric oxygen for photosensitive elements having an in situ mask (page 14, lines 22-24) in order to assure good contact between the image transparency and the photosensitive element. Suzuki and Dudek are analogous art in the flexographic printing plate field. Dudek teaches that by incorporating a removal step of the unpolymerized parts of the relief-forming layer aids, while in contact with an absorbent material allows the flexographic

printing plates to aid in having internal strength and tear resistance. See page 17. Further, Dudek teaches that the removal of the unpolymerized parts of the relief-forming layer allows for a flexographic printing plate to be produced without distortion. See page 15, lines 22-36.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the process of Suzuki in view of tear resistance, internal strength of the plate and distortion effects. Therefore, the rejections are maintained.

(c) The applicant does not agree or understand the Examiner's argument. The argument appears not to be based on sound scientific reasoning. The paragraph on page 16, lines 23 to 27, to which the Examiner is obviously referring, further only characterizes the desirable properties of this absorbent material. It is impermissible to simply engage in hindsight reconstruction of the claimed invention where the reference itself provides no teaching as to why the applicant's combination would have been obvious.

Examiner disagrees. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). The absorbent material disclosed by Dudek is part of the removal process. See page 15, lines 6-36 and page 15, line 37- page 6, line 32. Examiner stated the removal process aids in the printing plate layer to have tear resistance and internal strength. Further, Dudek teaches that the removal of the unpolymerized parts of the

relief-forming layer allows for a flexographic printing plate to be produced without distortion. See page 15, lines 22-36. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the process of Suzuki in view of tear resistance, internal strength of the plate and distortion effects. Therefore, the rejections are maintained.

Conclusion

5. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHANCEITY N. ROBINSON whose telephone number is (571)270-3786. The examiner can normally be reached on Monday to Thursday: 7:30 am-6:00 pm eastern time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on (571)272-1526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Chanceity N Robinson/
Examiner, Art Unit 1795

/Cynthia H Kelly/
Supervisory Patent Examiner, Art Unit 1795